Datasheet for ABIN968106

anti-SMAD2 antibody (AA 27-172)

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Overview

Quantity:	150 µg
Target:	SMAD2
Binding Specificity:	AA 27-172
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This SMAD2 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Immunoprecipitation (IP)

Product Details

Immunogen:	Human MAD2 aa. 27-172
Clone:	48-MAD2
Isotype:	IgG2a
Cross-Reactivity:	Mouse (Murine), Rat (Rattus)
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing. 4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

Product Details

Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target:	SMAD2
Alternative Name:	hsMAD2 (SMAD2 Products)
Background:	Progression of the mammalian cell cycle is regulated by phosphorylation/dephosphorylation and synthesis/degradation of many key proteins. These events are of utmost importance at the checkpoints, or transition points, of the cell cycle. MAD2 (Mitotic Arrest Deficient) is the human homolog of a yeast and Xenopus protein that is essential for spindle assembly during mitosis. The human hsMAD2 gene encodes a protein of 205 amino acids with a predicted molecular weight of 23.5 kDa. Binding of affinity purified polyclonal antibodies to the MAD2 protein prevents mitosis of HeLa cells. This indicates that, like its invertebrate relatives, MAD2 is necessary for mitosis. Furthermore, MAD2 is localized at the kinetochore of condensed chromosomes during mitosis and cells defective in the mitotic checkpoint have reduced levels of MAD2. Synonyms: Mitotic Arrest Deficient-2
Molecular Weight:	24 kDa
Pathways:	Cell Division Cycle, Hormone Transport, Chromatin Binding, Protein targeting to Nucleus

Application Details

Comment:	Related Products: ABIN968537, ABIN967389
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Handling

Storage:	-20 °C
Storage Comment:	Store undiluted at -20°C.

Publications

Product cited in:

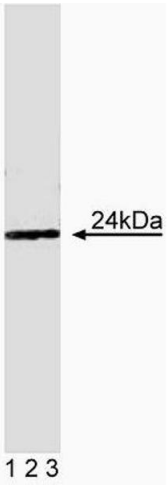
Babu, Jeganathan, Baker, Wu, Kang-Decker, van Deursen: "Rae1 is an essential mitotic checkpoint regulator that cooperates with Bub3 to prevent chromosome missegregation." in: **The Journal of cell biology**, Vol. 160, Issue 3, pp. 341-53, (2003) (PubMed).

Iwanaga, Kasai, Kibler, Jeang: "Characterization of regions in hsMAD1 needed for binding hsMAD2. A polymorphic change in an hsMAD1 leucine zipper affects MAD1-MAD2 interaction and spindle checkpoint function." in: **The Journal of biological chemistry**, Vol. 277, Issue 34, pp. 31005-13, (2002) (PubMed).

Saitoh, Pizzi, Wang: "Perturbation of SUMOlation enzyme Ubc9 by distinct domain within nucleoporin RanBP2/Nup358." in: **The Journal of biological chemistry**, Vol. 277, Issue 7, pp. 4755-63, (2002) (PubMed).

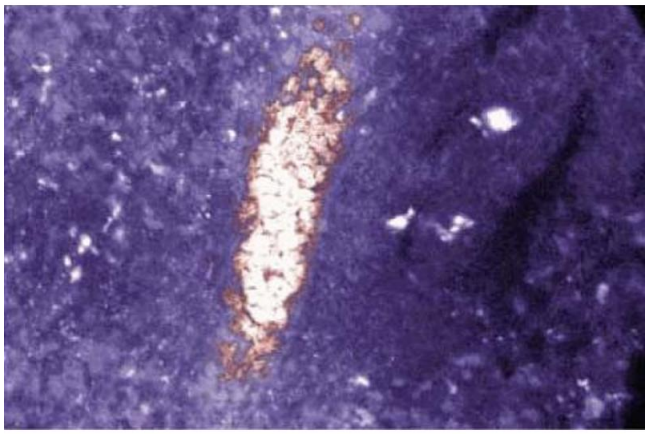
Chen, Waters, Salmon, Murray: "Association of spindle assembly checkpoint component XMAD2 with unattached kinetochores." in: **Science (New York, N.Y.)**, Vol. 274, Issue 5285, pp. 242-6, (1996) (PubMed).

Li, Benezra: "Identification of a human mitotic checkpoint gene: hsMAD2." in: **Science (New York, N.Y.)**, Vol. 274, Issue 5285, pp. 246-8, (1996) (PubMed).



Western Blotting

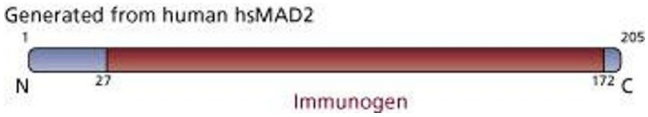
Image 1. Western blot analysis of MAD2 on a Jurkat cell lysate (Human T-cell leukemia, ATCC TIB-152). Lane 1: 1:1000, lane 2: 1:2000, lane 3: 1:4000 dilution of the mouse anti-MAD2 antibody.



Immunofluorescence

Image 2. Immunofluorescence staining of rabbit spleen.

Image 3.



Please check the product details page for more images. Overall 4 images are available for ABIN968106.